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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

MCCOMMAS, STUART S

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/564,285	Applicant(s) DELATTRE, ERIC	
	Examiner Stuart McCommas	Art Unit 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 July 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 13-17 and 20-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Shaw (United States Patent Application Publication 2003/0058219), hereinafter referenced as Shaw.

Regarding claim 13, Shaw discloses an input peripheral for a computer (paragraph 1), the peripheral comprising a movable portion 10 handled by the operator and fitted with electrical sensors suitable for generating electrical signals for sending to the computer in response to movements imparted to the movable portion by the operator (paragraph 10; paragraph 13; figure 1), wherein the movable portion comprises a shell (12) connected to a stationary base (14) by means of joint means (support 50, sections 56, 68, 80, and springs 16) configured and arranged to allow all possible movements of the shell (12) relative to the base (14) with the exception of movement in translation in a direction substantially perpendicular to the support plane of the base (14) (paragraph 18; figures 1-4).

Regarding claim 14, Shaw further discloses that the joint means comprises a connection element (sections 50, 56, 68 and 80) having a first end (56 and 68) co-

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operating with the shell (12) to provide a spherical type connection, and a plane second end (50) slidably received against a plane surface of the base (14) (figure 4).

Regarding claim 15, Shaw further discloses that the first end (56 and 68) of the connection element is spherical and is received in a complementary cavity (80) in the shell (figure 4).

Regarding claim 16, Shaw further discloses that the first end (56 and 68) of the connection element and the shell (12) includes co-operation means (studs 78a and 78b, 66a and 66b) to allow the shell (12) to move about an axis contained in a plane parallel to the plane surface of the base 14, while uniting the connection element and the shell (12) in rotation about an axis perpendicular to said plane (paragraph 20; figure 4).

Regarding claim 17, Shaw further discloses that the first end (56 and 68) of the connection element is spherical and is received in a complementary cavity (80) in the shell (12), and that the co-operation means comprise studs (studs 78a and 78b, 66a and 66b) extending in an equatorial plane of the spherical end (56 and 68) parallel to the plane surface of the base (14), the studs extending through grooves (82a and 82b) in the spherical cavity (80) of the shell (12) allowing the shell (12) to move in rotation about an axis contained in the equatorial plane (paragraph 20; figure 4).

Regarding claim 20, Shaw further discloses that the support element comprises an anisotropic resilient member (spring 20) bearing firstly against the plane surface of the base (14) and secondly against the shell (12), being suitable for bending elastically in directions parallel to the plane surface of the base (paragraphs 11-12; figure 4).

Regarding claim 21, Shaw further discloses return means (springs 16 and spring 20) for returning the shell (12) towards an equilibrium position (paragraphs 10-12; figure 4).

Regarding claim 25, Shaw discloses everything as applied above, further Shaw discloses that the means of joint means are configured and arranged to allow all possible movements including 5 degrees of freedom (paragraph 18; figures 1-4).

Regarding claim 26, Shaw discloses everything as applied above, further Shaw discloses that the five degrees of freedom comprises two degrees of freedom in translation in directions that are substantially parallel to a plane of the stationary base such as pitching the shell forward and pitching the shell backwards, and three degrees of freedom in rotation including twisting the shell left, twisting the shell right, and rolling the shell both left and right (paragraph 18; figures 1-4).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 18 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shaw in view of Soeta et al. (United States Patent 6,525,713), hereinafter referenced as Soeta.

Regarding claim 18, Shaw discloses everything as applied above in claim 16, further Shaw discloses that the first end (56 and 68) of the connection element is spherical (figure 4) and is received in a complementary cavity (80) in the shell (12), however Shaw fails to disclose wherein the co-operation means comprise fluting with curved flanks extending between the shell and the first end of the support element.

In a similar field of invention Soeta discloses that the co-operation means 13 comprise fluting (13b) with curved flanks 14 extending between the shell (2) and the first end of the support element 15 (figure 1).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Shaw with Soeta by specifically providing wherein the co-operation means comprise fluting with curved flanks extending between the shell and the first end of the support element for the purpose of allowing a user to manipulate a coordinate input device to input z-axis commands based on the rotation of a member to enable accurate and easy control of a cursor on a display (column 2 lines 14-20).

Regarding claim 24, Shaw discloses everything as applied above in claim 13, however Shaw fails to disclose a member for controlling an additional degree of freedom.

In a similar field of invention Soeta discloses a member (jog/shuttle switch 9, jog dial 12 and shuttle dial 13) used for controlling an additional degree of freedom for a cursor on a display (column 3 lines 39-67; column 4 lines 1-27; figure 1).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Shaw with Soeta by specifically providing a member for controlling an additional degree of freedom for the purpose of allowing a user to manipulate a coordinate input device to input z-axis commands based on the rotation of a member to enable accurate and easy control of a cursor on a display (column 2 lines 14-20).

7. Claims 19 and 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shaw in view of Toshiharu (United States Patent 6,753,848), hereinafter referenced as Toshiharu.

Regarding claim 19, Shaw discloses everything except that Shaw fails to disclose a first slider mounted to slide on the base in a first direction contained in a plane parallel to the plane surface of the base, and a second slider slidably mounted in the first slider to slide along a second direction also contained in said plane and perpendicular to the first direction, the second slider including means for centering it on the support element.

In a similar field of invention Toshiharu discloses a first slider (slider 32B, portion 30B and contact terminal 50B) mounted to slide on the base (40) in a first direction contained in a plane parallel to the plane surface of the base (40), and a second slider (slider 33A, portion 30A and contact terminal 50A) slidably mounted in the first slider (figure 2) to slide along a second direction also contained in said plane and perpendicular to the first direction, the second slider including means (spring 60A) for centering it on the connection element (column 4 lines 52-67; column 5 lines 1-26; column 6 lines 48-67; column 7 lines 1-18; figures 2-3).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Shaw with Toshiharu by specifically providing a first slider mounted to slide on the base in a first direction contained in a plane parallel to the plane surface of the base, and a second slider slidably mounted in the first slider to slide along a second direction also contained in said plane and perpendicular to the first direction, the second slider including means for centering it on the connection element for the purpose of allowing a pointing device which securely connects an internal substrate to an external substrate to provide simple operation and reduced operation area for a user (column 1 lines 59-64).

Regarding claim 22, Shaw further discloses return means (springs 16 and spring 20) for returning the shell (12) towards an equilibrium position (paragraphs 10-12; figure 4), and Toshiharu discloses that the return means comprise helical springs (springs 60A and 60B) extending between the base (internal substrate 40 fixed to bottom portion 14 in lower case 10b) and the second slider (column 5 lines 8-37; figure 2).

Regarding claim 23, Shaw further discloses return means (springs 16 and spring 20) for returning the shell (12) towards an equilibrium position extending between the shell (12) and the lower portion of the input device (paragraphs 10-12; figure 4), and Toshiharu discloses that the return means comprise a helical spring (spring 60A) that extends between a shell (10) of the input device and the second slider (slider 33A) where one end is held stationary against the shell (10) and one end is held against the second slider (column 5 lines 8-37; figure 2).

Response to Arguments

8. Applicant's arguments filed 7/3/2008 have been fully considered but they are not persuasive.

On pages 7-8 of Applicant's remarks, Applicant argues that only three degrees of freedom are discussed in Shaw and therefore not all possible movements of the shell relative to the base, and that the base and stationary support do not move relative to each other.

The Examiner respectfully disagrees, because Shaw specifically states that the shell 12 can be rotated, pitched, rocked, rolled, and yawed relative to the base and the connected input shaft (paragraph 18; paragraphs 30-31; figures 1-4), and nowhere does Shaw state that any movement by the shell relative to the base is not permitted.

On page 9 of Applicant's remarks, Applicant argues that stationary support 50 as shown in Shaw figure 3 is not slidably received against the surface.

The Examiner respectfully disagrees, because Shaw discloses that the end portion (50) of the joint means "rotatably supporting a rotatable spheric section 56." (paragraph 18). From figure 4 one can see that the end portion 50 is slidably supporting spheric section 56 and is received against or resting on the base. While the stationary support is not in and of itself slidable, the end 50 used in conjunction with the spheric section 56 is slidably received against the base (figure 4).

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stuart McCommas whose telephone number is (571)270-3568. The examiner can normally be reached on Monday-Friday 9 AM to 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sumati Lefkowitz can be reached on (571)272-3638. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Sumati Lefkowitz/
Supervisory Patent Examiner, Art Unit 2629

Stuart McCommas
Patent Examiner
Art Unit 2629

SSM